



Tessellation 38 (S)

Suite: Tessellation Party!

by Arya Akhavan (November 2014)

Angles for R.I. = 1.540

81 + 16 girdles = 97 facets

4-fold, mirror-image symmetry

120 index

L/W = 1.000 T/W = 0.158 U/W = 0.158

P/W = 0.445 C/W = 0.229

Vol./W³ = 0.233

PAVILION

P1	42.30°	003-027-033- Cut to centerpoint. 057-063-087- 093-117
G1	90.00°	003-027-033- Set stone size. 057-063-087- 093-117
P2	41.80°	002-028-032- Meet P1, G1 058-062-088- 092-118
P3	42.11°	004-026-034- Meet P1, P2 056-064-086- 094-116
P4	64.46°	014-016-044- Meet P1, G1, P3 046-074-076- 104-106
G2	90.00°	014-016-044- Level girdle. 046-074-076- 104-106

CROWN

C1	53.82°	003-027-033- Set girdle width. 057-063-087- 093-117
C2	48.24°	014-016-044- Level girdle. 046-074-076- 104-106
C3	47.33°	015-045-075- Meet G2, C2 105
C4	45.96°	120-030-060- Meet G1, C1 090
C5	34.70°	006-024-036- Meet G1, G2, C1, C2 054-066-084- 096-114
C6	36.05°	120-030-060- Meet C1, C4, C5 090
C7	29.56°	015-045-075- Meet C2, C3, C5 105
C8	20.00°	120-030-060- Meet C5, C6 090
C9	21.23°	015-045-075- Meet C5, C7, C8 105
T	0.00°	Table Meet C8, C9

More pentagons! Since you can't make a regular tiling of pentagons on a flat surface, there's no way to get the pentagonal designs in this suite to look super-geometric. This time around I stuck a square in the middle to see what happened with pentagons as I moved them away from the middle. Works in materials from quartz to rutile (RI = 1.54 - 2.62) with no changes, but I think topaz or large zircons would look best.

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